



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

VALLEY REGIONAL OFFICE

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Secretary of Natural Resources

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STATE AIR POLLUTION CONTROL BOARD ENFORCEMENT ACTION

ORDER BY CONSENT ISSUED TO

Harrisonburg Resource Recovery Facility
Registration #: 81016

SECTION A: Purpose

This is a Consent Order issued under the authority of Va. Code §§ 10.1-1187, -1184, -1307(D), -1309, and -1316(C), between the State Air Pollution Control Board and Harrisonburg Resource Recovery Facility, for the purpose of resolving certain alleged violations of environmental law and regulations.

SECTION B: Definitions

Unless the context clearly indicates otherwise, the following words and terms have the meaning assigned to them below:

1. "Va. Code" means the Code of Virginia (1950), as amended.
2. "Board" means the State Air Pollution Control Board, a permanent citizens' board of the Commonwealth of Virginia as described in Code §§ 10.1-1301 and 10.1-1184.
3. "Department" or "DEQ" means the Department of Environmental Quality, an agency of the Commonwealth of Virginia as described in Va. Code § 10.1-1183.
4. "Director" means the Director of the Department of Environmental Quality.

5. "Order" means this document, also known as a Consent Order.
6. "HRRF" means Harrisonburg Resource Recovery Facility, a facility that produces steam, chilled water, and electricity from the combustion of municipal solid waste.
7. "Facility" means the Harrisonburg Resource Recovery Facility located at 1630 Driver Drive, Harrisonburg, Virginia.
8. "VRO" means the Valley Regional Office of DEQ, located at 4411 Early Road, P.O. Box 3000, Harrisonburg, Virginia 22801.
9. "CFR" means Code of Federal Regulations.

SECTION C: Findings of Facts and Conclusions of Law

1. Annual stack testing was conducted on the Municipal Waste Combustion Units (MWCUs) at HRRF August 14-18, 2006, as required by Condition IV.D.4. of HRRF's Title V permit dated January 14, 2004 (amended on December 21, 2005).
2. DEQ received the August stack test results in a report dated September 15, 2006. The report indicated that measured hydrogen chloride (HCl) emissions for Unit 1 were 71.15 ppm_{dv} at 7% O₂. Measured HCl emissions for Unit 2 were 121.77 ppm_{dv} at 7% O₂. The tested HCl reduction efficiencies for Units 1 and 2 were 84.54% and 71.10%, respectively. Condition IV.A.7. of HRRF's Title V permit, Condition 17 of HRRF's Stationary Source Permit to Modify and Operate dated November 18, 2005, and 40 CFR §60.1215 limit HCl emissions to 25 parts per million by dry volume (ppm_{dv}) or 95% reduction of potential HCl emissions.
3. The August stack test results also indicated that measured HCl emissions for Unit 1 were 4.88 lb/hr and measured HCl emissions for Unit 2 were 7.23 lb/hr. Condition IV.A.9. of HRRF's Title V permit and Condition 19 of HRRF's Stationary Source Permit to Modify and Operate dated November 18, 2005, limit HCl emissions to 2.58 lb/hr.
4. HRRF communicated that the HCl control system appeared to have failed due to excessive moisture in the baghouse resulting from recent boiler maintenance, poor lime caking, and bag leaks.
5. On September 26, 2006, HRRF submitted HCl dispersion modeling results based on the HCl emission rates observed during the stack test. The modeled HCl concentration for both MWCUs combined was 72.62 ug/m³, below Virginia's significant ambient air concentration guideline of 187.5 ug/m³.
6. On October 19, 2006, DEQ issued a Notice of Violation to HRRF for the observations listed in items 2 and 3 above.

7. On November 3, 2006, HRRF notified DEQ that repeat stack testing for HCl would be conducted November 15-17, 2006. HRRF indicated that the retest would follow the original protocol submitted to DEQ on July 13, 2006.
8. DEQ received the November stack test results in a report dated February 15, 2007. The report indicated that measured HCl emissions for Unit 1 were 31.2 ppm_{dv} at 7% O₂. Measured HCl emissions for Unit 2 were 35.2 ppm_{dv} at 7% O₂. The tested HCl reduction efficiencies for Units 1 and 2 were 92.5% and 91.9%, respectively. The test was run at an average feed water rate of 29,978 lb/hr for Unit 1 and 32,062 lb/hr for Unit 2. Condition IV.A.7. of HRRF's Title V permit, Condition 17 of HRRF's Stationary Source Permit to Modify and Operate dated November 18, 2005, and 40 CFR §60.1215 limit HCl emissions to 25 ppm_{dv} or 95% reduction of potential HCl emissions.
9. During a meeting with DEQ on December 18, 2006, HRRF communicated that the August and November stack tests were conducted to demonstrate compliance under abnormally high feed water flow conditions. These high feed water flow conditions were not representative of normal operating conditions, but rather represented conditions experienced infrequently due to sudden, unexpected increases in steam demand. Additionally, such conditions did not represent greater waste loading to the MWCUs, but rather indicated a rapid influx of make-up water to generate steam. HRRF and DEQ concluded that feed water did not appear to be a reliable surrogate for waste load, and HRRF decided to explore the option of measuring steam flow rather than feed water. HRRF also decided to run a third stack test for HCl at more representative feed water conditions.
10. HRRF repeated the HCl stack testing on January 10, 2007 and submitted the results in a report dated February 15, 2007. However, the report indicated that the test was run at an average feed water flow rate of 24,380 lbs/hr, which was approximately 85% of the maximum average feed water flow rate (28,680 lb/hr) observed during 2006. Previous stack tests were run at feed water flow rates between 29,630 and 35,098 lb/hr. For the January retest, the report indicated that measured HCl emissions for Unit 1 were 15.5 ppm_{dv} at 7% O₂. Measured HCl emissions for Unit 2 were 11.7 ppm_{dv} at 7% O₂. The tested HCl reduction efficiencies for Units 1 and 2 were 97.7% and 97.1%, respectively. These values were in compliance with applicable limits at the tested operating rate; however, DEQ questioned the operating rate at which the test was conducted.
11. In a letter dated February 15, 2007, HRRF reiterated the assertion that the previous stack tests in August and November did not comply with HCl limits because the MWCUs were run above normal operating conditions to compensate for problems with the feed water surrogate. According to HRRF, short-term feed water fluctuations ("spikes") occur due to variable steam demand, distances the steam must travel, and inconsistencies in the waste. HRRF attempted to demonstrate compliance at an abnormally high feed water rate to compensate for these spikes to avoid noncompliance with the waste load monitoring requirements of 40 CFR 60 Subpart AAAA. HRRF provided data from the January stack test showing the relative stability of steam flow versus feed water flow as an indicator of waste load. Note that steam flow was measured with a type of meter not approved by EPA.

12. During March 2007, HRRF installed EPA-approved steam flow meters for the purpose of using steam as a surrogate for waste load, rather than feed water.
13. In a letter dated April 2, 2007, HRRF expressed its intent to stack test within 60 days to establish steam as the primary surrogate for load. HRRF also expressed its intent to operate above the feed water rate (24,380 lb/hr) at which compliance was demonstrated during the January retest. HRRF asserted that previous test data could be used to show that operation at a feed water rate of 27,500 lb/hr or less would provide assurance of compliance with the 25 ppm_{dv} HCl standard.
14. HRRF repeated the HCl stack testing from May 29-June 1, 2007, and submitted the results in a report dated July 5, 2007. The report indicated that the test for Unit 1 was run at 26,871 lbs/hr feed water and 27,572 lbs/hr steam flow, and the test for Unit 2 was run at 28,858 lbs/hr feed water and 27,880 lbs/hr steam flow. The report indicated that measured HCl emissions for Unit 1 were 0.16 lb/hr and 2.7 ppm_{dv} at 7% O₂. Measured HCl emissions for Unit 2 were 0.77 lb/hr and 13.3 ppm_{dv} at 7% O₂. The tested HCl reduction efficiencies for Units 1 and 2 were 99.6% and 98.0%, respectively. These values were in compliance with applicable limits.
15. Given that HRRF tested above the maximum operating rate during the August and November tests and below the maximum operating rate during the January test, the conditions for these tests do not appear to meet the requirements of 40 CFR §60.1300 and Title V Condition IV.D.3., which state that compliance testing for HCl must be performed while the MWCU is operating at full load. Additionally these tests do not appear to meet the requirements of Title V Condition IV.D.4., which states that tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30, which calls for testing under conditions that are based on representative performance of the source.
16. Given that HRRF did not demonstrate compliance with HCl limits until the June test, which was later than 13 months after the previous passing stack test (August 25, 2005), the test conditions do not appear to meet the requirements of Title V Condition IV.D.4. and 40 CFR §60.1295, which state that annual stack tests shall be conducted on each MWCU stack (Ref. Nos. 1 and 2) for dioxins/furans, cadmium, lead, mercury, opacity, particulate matter, nitrogen oxides, hydrogen chloride, and fugitive ash no later than 13 months after the previous stack test.
17. HRRF's last annual stack test for which compliance was demonstrated for HCl was conducted on August 25, 2005. Given that the stack test to establish steam as a primary surrogate was completed on June 1, 2007, and the stack test yielded results in compliance with applicable HCl requirements, the period of noncompliance appears to extend from September 25, 2006, (13 months after the previous passing stack test) until June 1, 2007.
18. HRRF and City of Harrisonburg representatives met with DEQ officials on October 2, 2007 to discuss the allegations of violation and remedial measures taken up to the date of the meeting and agreed in principle to the corrective action terms set out in Appendix A to this Order and to the payment of a civil penalty in accordance with regulations set out by the State Air Control Board.

SECTION D: Agreement and Order

By virtue of the authority granted State Air Pollution Control Board pursuant to Va. Code §§ 10.1-1186(2), 10.1-1309, and 10.1-1316(C), orders HRRF, and HRRF voluntarily agrees to the following conditions in settlement of the violations cited in this Order:

1. HRRF agrees to a civil charge of **\$13,119.00** in settlement of the violations cited in this Order, to be paid as follows: HRRF shall pay **\$3,360.00** of the civil charge within 30 days of the effective date of this Order. Payment must indicate that the civil charge is paid pursuant to this Order, and shall include HRRF's Federal Identification Number. Payment shall be by check, certified check, money order, or cashier's check payable to "**Treasurer of the Commonwealth of Virginia**" and sent to:

Receipts Control
Department of Environmental Quality
Post Office Box 1104
Richmond, Virginia 23218

In addition, HRRF shall satisfy the remaining **\$9,839.00** of the civil charge by satisfactorily completing the Supplemental Environmental Project (SEP) described in Appendix B of this Order.

2. HRRF shall comply with the terms and conditions as set out in Appendix A of this Order.
3. The net project cost of the SEP to HRRF shall not be less than the amount set forth in Paragraph D.3. If it is, HRRF shall pay the remaining amount in accordance with Paragraph D.1. of this Order, unless otherwise agreed to by the Department. "Net project costs" means the net present after-tax cost of the SEP, including tax savings, grants, and first-year cost reductions and other efficiencies realized by virtue of project implementation. If the proposed SEP is for a project for which the party will receive an identifiable tax savings (*e.g.*, tax credits for pollution control or recycling equipment), grants, or first-year operation cost reductions or other efficiencies, the net project cost shall be reduced by those amounts. The costs of those portions of SEPs that are funded by state or federal low-interest loans, contracts, or grants shall be deducted.
4. By signing this Order, HRRF certifies that it has not commenced performance of the SEP.
5. HRRF acknowledges that it is solely responsible for completing the SEP project. Any transfer of funds, tasks, or otherwise by HRRF to a third party, shall not relieve HRRF of its responsibility to complete the SEP as described in this Order.
6. In the event it publicizes the SEP or the SEP results, HRRF shall state in a prominent manner that the project is part of a settlement for an enforcement action with DEQ.
7. The Department has the sole discretion to:

- a. Authorize any alternate, equivalent SEP proposed by the Facility; and
 - b. Determine whether the SEP, or alternate SEP, has been completed in a satisfactory manner.
8. Should the Department determine that HRRF has not completed the SEP, or alternate SEP, in a satisfactory manner; the Department shall so notify HRRF in writing. Within 30 days of being notified, HRRF shall pay the amount specified in Paragraph D.3., above, as provided in Paragraph D.1., above.

SECTION E: Administrative Provisions

1. The Board may modify, rewrite, or amend the Order with the consent of HRRF, for good cause shown by HRRF, or on its own motion after notice to HRRF and its opportunity to be heard.
2. This Order addresses and resolves only those violations specifically identified herein. This Order shall not preclude the Board or the Director from taking any action authorized by law, including but not limited to: (1) taking any action authorized by law regarding any additional, subsequent, or subsequently discovered violations; (2) seeking subsequent remediation of the Facility as may be authorized by law; or (3) taking subsequent action to enforce this Order. This Order shall not preclude appropriate enforcement actions by other federal, state, or local regulatory authorities for matters not addressed herein.
3. For purposes of this Order and subsequent actions with respect to this Order, HRRF admits to the allegations in Section C of this Order.
4. HRRF consents to venue in the Circuit Court of the City of Richmond for any civil action taken to enforce the terms of this Order.
5. HRRF declares it has received fair and due process under the Administrative Process Act, Va. Code §§ 2.2-4000 *et seq.*, and the Air Pollution Control Law and it waives the right to any hearing or other administrative proceeding authorized or required by law or regulation, and to any judicial review of any issue of fact or law contained herein. Nothing herein shall be construed as a waiver of the right of HRRF to any administrative proceeding for, or to judicial review of, any action taken by the Board to enforce this Order.
6. Failure by HRRF to comply with any of the terms of this Order shall constitute a violation of an order of the Board. Nothing herein shall waive the initiation of appropriate enforcement actions or the issuance of additional orders as appropriate by the Board or the Director as a result of such violations. Nothing herein shall affect appropriate enforcement actions by any other federal, state, or local regulatory authority.
7. If any provision of this Order is found to be unenforceable for any reason, the remainder of the Order shall remain in full force and effect.

8. HRRF shall be responsible for failure to comply with any of the terms and conditions of this Order unless compliance is made impossible by earthquake, flood, other acts of God, war, strike, or such other occurrence. HRRF shall show that such circumstances were beyond its control and not due to a lack of good faith or diligence on its part. HRRF shall notify the DEQ Regional Director in writing when circumstances are anticipated to occur, are occurring, or have occurred that may delay compliance or cause noncompliance with any requirement of the Order. Such notice shall set forth:
- a. the reasons for the delay or noncompliance;
 - b. the projected duration of any such delay or noncompliance;
 - c. the measures taken and to be taken to prevent or minimize such delay or noncompliance; and
 - d. the timetable by which such measures will be implemented and the date full compliance will be achieved.

Failure to so notify the Regional Director within 24 hours of learning of any condition above, which HRRF intends to assert will result in the impossibility of compliance, shall constitute a waiver of any claim to inability to comply with a requirement of this Order.

9. This Order is binding on the parties hereto, their successors in interest, designees and assigns, jointly and severally.
10. This Order shall become effective upon execution by both the Director or his designee and HRRF. Notwithstanding the foregoing, HRRF agrees to be bound by any compliance date which precedes the effective date of this Order.
11. This Order shall continue in effect until:
- a. HRRF petitions the Director or his designee to terminate the Order after it has completed all requirements of the Order and the Director or his designee approves the termination of the Order; or
 - b. The Director or the Board may terminate this Order in his or its whole discretion upon 30 days' written notice to HRRF.

Termination of this Order, or of any obligation imposed in this Order, shall not operate to relieve HRRF from his obligation to comply with any statute, regulation, permit condition, other order, certificate, certification, standard, or requirement otherwise applicable.

12. By its signature below, HRRF voluntarily agrees to the issuance of this Order.

And it is so ORDERED this day of 21st November, 2007

Amy Thatcher Owens

Amy Thatcher Owens, Regional Director
Valley Regional Office
Department of Environmental Quality

HRRF voluntarily agrees to the issuance of this Order.

By: Kurt D. Hodges

Date: 11/16/07

Commonwealth of Virginia

(City/County of) Harrisonburg

The foregoing document was signed and acknowledged before me this 16th day of
November, 2007, by Kurt D. Hodges, who is
(name)

City Manager of HRRF, on behalf of HRRF.
(title)

Laura E. Bowers
Notary Public 7109015

My commission expires: February 28, 2011

APPENDIX A

In addition to the foregoing, the Virginia State Air Pollution Control Board orders and HRRF agrees to implement this corrective action plan as an additional provision to this Order.

HRRF shall submit permit applications by December 14, 2007, to incorporate the following statement (in italics) into Condition 24.a. of its Stationary Source Permit to Modify and Operate (dated November 18, 2005) and into Condition IV.A.14.a. of its Title V permit (dated January 14, 2004):

Condition 24.a. and Condition IV.A.14.a.

The following operating practice requirements apply for the MWCUs (Ref. Nos. 1 and 2):

The Permittee shall not operate the MWCU at loads greater than 110 percent of the maximum demonstrated unit load of the MWCU (4-hour block average), as specified under "Definitions" in 40 CFR §60.1465. *Under no circumstances shall the Permittee operate the MWCU at loads that exceed the maximum demonstrated unit load of the MWCU (4-hour block average) during the most recent Hydrogen Chloride stack test that demonstrates compliance with the applicable emission limit for Hydrogen Chloride specified in 40 CFR §60.1215.*

APPENDIX B

SUPPLEMENTAL ENVIRONMENTAL PROJECT

In addition to the foregoing, HRRF shall perform the SEP identified below in the manner specified in this Appendix.

1. HRRF shall construct a facility that will provide local citizens with a collection and temporary holding area for Household Hazardous Waste (HHW). Due to staffing and safety concerns, the facility will only accept easily identifiable HHW including but not limited to herbicides, pesticides, oil-based paints, petroleum products, and batteries. These substances shall be managed in accordance with the Virginia Solid and Hazardous Waste Management Regulations. The facility shall be open to the public at least one day per month, but may, at the discretion of Harrisonburg or Rockingham County officials, be open more frequently. The facility shall be located at the Rockingham County Landfill, the Harrisonburg Recycling Center, or other DEQ-approved site.
2. The SEP shall be completed within 180 days of the effective date of this Order.
3. HRRF shall submit a written final report on the SEP, verifying that the SEP has been completed in accordance with the terms of this Order, and certified by a responsible corporate officer. HRRF shall submit the final report and certification to DEQ within 30 days of the SEP completion date.
4. If the SEP has not or cannot be completed as described in the Order, HRRF shall notify DEQ in writing no later than the SEP completion deadline established in Condition 2 above. Such notification shall include:
 - a. an alternate SEP proposal, or
 - b. payment of the amount specified in Paragraph D.3. as described in Paragraph D.1.
5. HRRF hereby consents to reasonable access by DEQ to property or documents for verifying progress or completion of the SEP.
6. HRRF shall submit to DEQ written verification of the final overall and net project cost of the SEP in the form of a certified statement itemizing costs, invoices and proof of payment, and/or similar documentation with the written final report described in Condition 3 above. For the purposes of this submittal, net project costs can be either the actual, final net project costs or the projected net project costs if such projected net project costs statement is accompanied by a CPA certification or certification from HRRF's Chief Financial Officer concerning the projected tax savings, grants, or first-year operation cost reductions or other efficiencies.
7. Documents to be submitted to DEQ, other than the civil charge payment described in Section D of the Order, shall be sent to Ms. Kimberly Beth Bryant, DEQ Valley Regional Office, P.O. Box 3000, Harrisonburg, VA 22801.